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EXAMINER

WEST, LEWIS G

ART UNIT PAPER NUMBER

2681

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Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/988,241

Applicant(s)

PAILA ET AL

Examiner

Lewis G. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1,2, 4-7, 9-13, 15, 16, 18-24, 26, 27 and 29-35 are rejected under 35

U.S.C. 102(e) as being anticipated by Aggarwal et al (US 6,154,463).

Regarding claim 1, Aggarwal discloses a method for performing multicast session handover, comprising the steps of

(i) in a first cell, receiving multicast session information for a plurality of cells comprising the first cell and a second cell; (col. 17 line 55-col. 18 line 7)

(ii) tuning to a multicast session in the first cell using the received multicast session information; (col. 18 line 8-15)

(iii) when a predetermined condition occurs, tuning to the multicast session in the second cell using the received multicast session information. (col. 18 line 16-36)

Regarding claim 2, Aggarwal discloses the method of claim 1, wherein, in step (i), the multicast session information comprises a session identifier and a list of cells in which the multicast session is available. (col. 7 lines 31-42)

Regarding claim 4, Aggarwal discloses the method of claim 1, wherein, in step (i), the multicast session information comprises a session title. (col. 7 lines 31-42)

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Regarding claim 5, Aggarwal discloses the method of claim 1, wherein the predetermined condition comprises a signal strength fading. (col. 18 lines 42-51)

Regarding claim 6, Aggarwal discloses the method of claim 1, wherein the predetermined condition comprises receiving predetermined user input. (col. 18 lines 21-36)

Regarding claim 7, Aggarwal discloses the method of claim 1, wherein steps (ii) and (iii) comprise receiving a digital video broadcast terrestrial (DVB-T) multicast session. (Col. 21 lines 34-42)

Regarding claim 9, Aggarwal discloses the method of claim 1, wherein, in step (i), the multicast session information comprises link-level access parameters corresponding to the first and second cells, wherein steps (ii) and (iii) comprise using the link-level access parameters to tune to the multicast session in each cell. (col. 17 line 55-col. 18 line 20)

Regarding claim 10, Aggarwal discloses the method of claim 1, further comprising the step of joining an IP multicast group in the first cell. (col. 18 lines 52-67)

Regarding claim 11, Aggarwal discloses the method of claim 1, further comprising the step of periodically receiving multicast session announcements while tuned to the multicast session in the first cell. (Col. 18 line 65- col. 19 line 9)

Regarding claim 12, Aggarwal discloses a mobile terminal, comprising: a processor; and memory for storing computer readable instructions that, when executed by the processor, cause the mobile terminal to perform steps of: (i) in a first cell, receiving multicast session information for a plurality of cells comprising the first cell and a second cell; (col. 17 line 55-col. 18 line 7)

(ii) tuning to a multicast session in the first cell using the received multicast session information; (col. 18 line 8-15)

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(iii) when a predetermined condition occurs, tuning to the multicast session in the second cell using the received multicast session information. (col. 18 line 16-36)

Regarding claim 13, Aggarwal discloses the mobile terminal of claim 12, wherein, in step (i), the multicast session information comprises a session identifier and a list of channels in which the multicast session is available. (col. 7 lines 31-42)

Regarding claim 15, Aggarwal discloses the mobile terminal of claim 12, wherein, in step (i), the multicast session information comprises a session title. (col. 7 lines 31-42)

Regarding claim 16, Aggarwal discloses the mobile terminal of claim 12, wherein steps (ii) and (iii) comprise receiving a digital video broadcast terrestrial (DVB-T) multicast session. (Col. 21 lines 34-42)

Regarding claim 18, Aggarwal discloses the mobile terminal of claim 12, wherein, in step (i), the multicast session information comprises link-level access parameters corresponding to the first and second cells, and wherein steps (ii) and (iii) comprise using the link-level access parameters to tune to the multicast session in each cell. (col. 17 line 55-col.18 line20)

Regarding claim 19, Aggarwal discloses the mobile terminal of claim 12, wherein the computer readable instructions further comprise the step of joining an IP multicast group in the first cell. (col. 18 lines 52-67)

Regarding claim 20, Aggarwal discloses the mobile terminal of claim 12, wherein the computer readable instructions further comprise the step of periodically receiving multicast session announcements while tuned to the multicast session in the first cell. (Col. 18 line 65- col. 19 line 9)

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Regarding claim 21, Aggarwal discloses the mobile terminal of claim 12, wherein in step (iii) the predetermined condition comprises a signal strength fading. (col. 18 lines 42-51)

Regarding claim 22, Aggarwal discloses the mobile terminal of claim 12, wherein in step (iii) the predetermined condition comprises receiving predetermined user input. (col. 7 lines 31-42)

Regarding claim 23, Aggarwal discloses a computer readable medium storing computer readable instructions that, when executed by a processor, cause a data processing device to perform the steps of

(i) in a first cell, receiving multicast session information for a plurality of cells comprising the first cell and a second cell; (col. 17 line 55-col. 18 line 7)

(ii) tuning to a multicast session in the first cell using the received multicast session information; (col. 18 line 8-15)

(iii) when a predetermined condition occurs, tuning to the multicast session in the second cell using the received multicast session information. (col. 18 line 16-36)

Regarding claim 24, Aggarwal discloses the computer readable medium of claim 23, wherein, in step (i), the multicast session information comprises a session identifier and a list of channels in which the multicast session is available. (col. 7 lines 31-42)

Regarding claim 26, Aggarwal discloses the computer readable medium of claim 23, wherein, in step (i), the multicast session information comprises a session title. (col. 7 lines 31-42)

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Regarding claim 27, Aggarwal discloses the computer readable medium of claim 23, wherein steps (ii) and (iii) comprise receiving a digital video broadcast terrestrial (DVB-T) multicast session. (Col. 21 lines 34-42)

Regarding claim 29, Aggarwal discloses the computer readable medium of claim 23, wherein, in step (i), the multicast session information comprises link-level access parameters corresponding to the first and second cells, and wherein steps (ii) and (iii) comprise using the link-level access parameters to tune to the multicast session in each cell. (col. 17 line 55-col.18 line 20)

Regarding claim 30, Aggarwal discloses the computer readable medium of claim 23, wherein the computer readable instructions further comprise the step of joining an IP multicast group in the first cell. (col. 18 lines 52-67)

Regarding claim 31, Aggarwal discloses the computer readable medium of claim 23, wherein the computer readable instructions further comprise the step of periodically receiving multicast session announcements while tuned to the multicast session in the first cell. (Col. 18 line 65- col. 19 line 9)

Regarding claim 32, Aggarwal discloses the computer readable medium of claim 23, wherein in step (iii) the predetermined condition comprises a signal strength fading. (col. 18 lines 42-51)

Regarding claim 33, Aggarwal discloses the computer readable medium of claim 23, wherein in step (iii) the predetermined condition comprises receiving predetermined user input. (col. 7 lines 31-42)

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Regarding claim 34, Aggarwal discloses a method for performing multicast session handover, comprising steps of:

(i) tuning to a logical announcement channel;

(ii) receiving a session announcement corresponding to a multicast session, the session announcement comprising information that maps link-level access parameters in each of a plurality of cells to the multicast session:

(iii) receiving the multicast session in a first cell using the first cell's received link level access parameters; and

(iv) when reception of the multicast session in the first cell changes from a first signal strength, receiving the multicast session in a second cell using link-level access parameters contained in the session announcement. (col. 17 line 55-col.18 line20)

Regarding claim 35, Aggarwal discloses the method of claim 34, wherein steps (iii) and (v) comprise tuning to a digital video broadcast terrestrial (DVB-T) multicast session. (Col. 21 lines 34-42)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 14 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aggarwal in view of examiner's Official Notice.



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Regarding claim 3, Aggarwal discloses the method of claim 1, but does not expressly disclose that a frequency information is received. Examiner takes official notice that frequency information is necessary for communication to occur in a mobile system. It therefore would have been obvious to send frequency information in order to set up a multicast communication so that a mobile could locate a channel on which the multicast would be broadcast without having to scan multiple frequencies.

Regarding claim 14, Aggarwal discloses the method of claim 1, but does not expressly disclose that a frequency information is received. Examiner takes official notice that frequency information is necessary for communication to occur in a mobile system. It therefore would have been obvious to send frequency information in order to set up a multicast communication so that a mobile could locate a channel on which the multicast would be broadcast without having to scan multiple frequencies.

Regarding claim 25, Aggarwal discloses the method of claim 1, but does not expressly disclose that a frequency information is received. Examiner takes official notice that frequency information is necessary for communication to occur in a mobile system. It therefore would have been obvious to send frequency information in order to set up a multicast communication so that a mobile could locate a channel on which the multicast would be broadcast without having to scan multiple frequencies.

4. Claims 8, 17, 28 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aggarwal in view of Das et al.

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Regarding claim 8, Aggarwal discloses the method of claim 1, wherein steps (ii) and (iii) comprise receiving a multicast session, but does not disclose UMTS. Das discloses a system with multicast handover that may be implemented in UMTS. (Paragraphs 0004, 0012) Therefore it would have been obvious to one of ordinary skill in the art to implement a multicast handover method using UMTS, as UMTS is well known to be a developing standard that will support multimedia applications where multicast will be used.

Regarding claim 17, Aggarwal discloses the mobile terminal of claim 12, wherein steps (ii) and (iii) comprise receiving a multicast session, but does not disclose UMTS. Das discloses a system with multicast handover that may be implemented in UMTS. (Paragraphs 0004, 0012) Therefore it would have been obvious to one of ordinary skill in the art to implement a multicast handover method using UMTS, as UMTS is well known to be a developing standard that will support multimedia applications where multicast will be used.

Regarding claim 28, Aggarwal discloses the computer readable medium of claim 23, wherein steps (ii) and (iii) comprise receiving a multicast session, but does not disclose UMTS. Das discloses a system with multicast handover that may be implemented in UMTS. (Paragraphs 0004, 0012) Therefore it would have been obvious to one of ordinary skill in the art to implement a multicast handover method using UMTS, as UMTS is well known to be a developing standard that will support multimedia applications where multicast will be used.

Regarding claim 36, Aggarwal discloses the method of claim 34, wherein steps (iii) and (v) comprise tuning to a multicast session, but does not disclose UMTS. Das discloses a system with multicast handover that may be implemented in UMTS. (Paragraphs 0004, 0012) Therefore it would have been obvious to one of ordinary skill in the art to implement a multicast handover

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method using UMTS, as UMTS is well known to be a developing standard that will support multimedia applications where multicast will be used.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Matsunaga et al, Rinchiuso et al, Sauer et al, McCormick et al, and Sekine et al are cited as relevant in the art of mobile communications handoff and multicasting.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 703-308-9298. The examiner can normally be reached on Monday-Thursday 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 703-305-4778. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.



Lewis West  
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March 20, 2003



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